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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,170	07/02/2005	Helmut Schon		7860
7590	10/17/2006		EXAMINER	
Max Fogiel 44 Maple Court Highland Park, NJ 08904			RIDDLE, KYLE M	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/542,170	SCHON ET AL.
	Examiner Kyle M. Riddle	Art Unit 3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 July 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Page 8, second line from the bottom, "W2" is not shown in the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figures 1 and 2 have reference characters "zg" and "ag" not mentioned in the description. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

Specifically, the abstract is too long at approximately 280 words.

4. The disclosure is objected to because of the following informalities:

- Page 3, first full paragraph, second to last line of the paragraph, "contract" should read --contact--;

- Page 4, fourth paragraph, last line of paragraph, "bust" should read --must--;

- Page 6, first paragraph should end with a period instead of a comma.

Appropriate correction is required.

Claim Objections

5. Claims are objected to because of the following informalities:

6. Claim 12 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 2.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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7. Claim 13/1 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

8. Claim 14/1 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 6.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

9. Claim 15/1 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 7.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

10. Claim 16/1 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 8.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

11. Claim 17/1 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 9.

When two claims in an application are duplicates or else are so close in content that they both

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cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Morrn (U.S. Patent 6,792,903).

Morrn discloses a valve lift adjustment mechanism comprising:

- a housing or cover 11 and intermediate support 12 and cylinder head 13 (column 3, lines 5-7);
- a cam mounted on a camshaft 28 for rotation (column 3, lines 19-21; Figure 1a);
- an intermediate member or lifting lever 4 held displaceably and rotatably in a bearing in connecting member 5 by roll 30 activated by contact with camshaft 28 by way of a cam joint or contact surfaces of camshaft 28 and roll 31 (column 3, lines 19-21; Figure 1a);

- a power take-off member or roll drag lever 1 that transfers movement to the valve 3 and is connected to lifting lever 4 at a cam joint by contact between roll 7 on working curve 6 of the lifting lever 4 (column 3, lines 22-25; Figure 1a);

- the shape of the working curve 6 of cam or lifting lever 4 having a point of inflection in the contact region that provides for an acceleration ramp from zero to, under full load, a maximum lift of valve 3 (column 3, lines 29-42; Figure 1a);

- the movement transferred to valve 3 being changed by modifying the position of the orientation of lifting lever 4 (column 3, lines 34-42; Figure 1a);

- the roll 7 being in the shape of a circle (Figure 1a).

14. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Baguena (U.S. Patent 4,572,118).

Baguena discloses a variable valve timing mechanism comprising:

- a main driving cam 10 rotating around a fixed axis and transmitting through a cam join or contact with rollers 12 movement to an intermediate member or cam 9 (column 3, lines 27-32; Figure 5);

- a power take-off member or lever 3 that transfers movement of cam 9 through another cam joint or contact surfaces between lever 3 and roller 8 on arced or curved surface of cam 9 to actuate valve 6 (column 3, lines 34-47; Figure 5);

- the profile of the contacting surface of cam 9 having an inflection point providing varying valve lift and duration movements from zero to maximum lift/duration (column 4, lines 5-34; Figures 2, 3, and 5);

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- modifying the movement of valve 6 is done by means of rotating control shaft 14 to rotate oscillating cam 9 to provide different surface profiles on roller 8 (column 3, lines 61-68 with column 4, lines 1-18; Figures 2, 3, and 5).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 2 patents.

- Nishida et al. (Japanese Patent JP-06017623) disclose a cam surface with a circular surface section for altering the valve lift speed.

- Tourtelot, Jr (U.S. Patent 4,382,428) discloses a contoured finger follower with an arced intermediate lever between the cam and a rocker arm.

Communication

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (571) 272-4864. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kyle M. Riddle
Kyle M. Riddle
Examiner
Art Unit 3748

kmr

Thomas Denion
THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700